

平均转换效率 $\geq 30\%$

主体设计

主要材料	GaInP/GaAs/Ge
尺寸	100mm $\pm 0.25\text{mm}$
厚度	145$\mu\text{m} \pm 10\mu\text{m}$
极性	N on P
平均重量	< 75mg/cm²

外延片



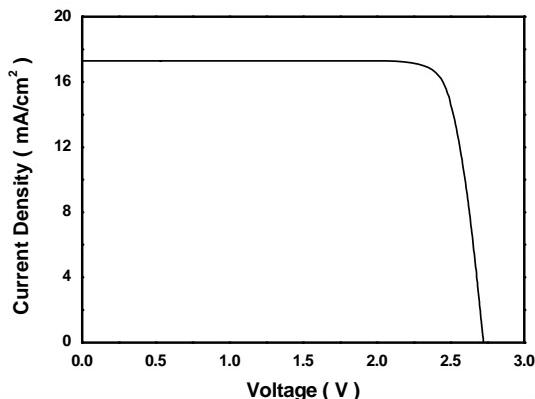
电池结构



温度系数

	BOL	1E15e/cm²
Voc (V)	2.75	2.48
Jsc (mA/cm ²)	17.4	16.7
Vmp (V)	2.501	2.26
Jmp (mA/cm ²)	16.70	15.68
Eff (%)	30.8	26.2

I-V曲线



Average Efficiency≥ 30%

Main parameter

Material	GaInP/GaAs/Ge
Diameter	100mm±0.25mm
Thickness	145μm±10μm
Polarity	N on P
Weight	< 75mg/cm²

Wafer photograph



Electronic properties@AM0(135.3mW/cm²), 25°C

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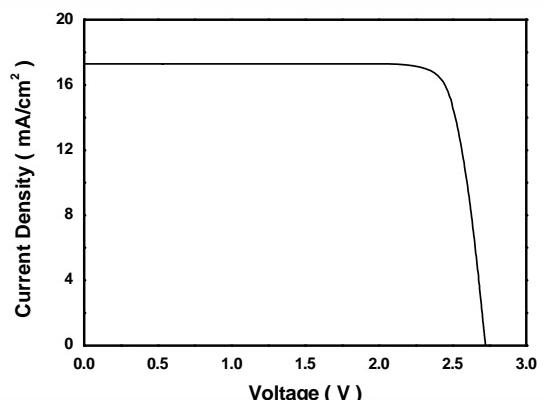
Schematic structure



Thermal coefficient

	BOL	1E15e/cm ²
Voc (mV/°C)	-6.2	-6.5
Jsc (μA/cm ² · °C)	11.5	11.3
Vmp (mV/°C)	-6.4	-6.8
Jmp (μA/cm ² · °C)	10.1	10.3

I-Vcurves

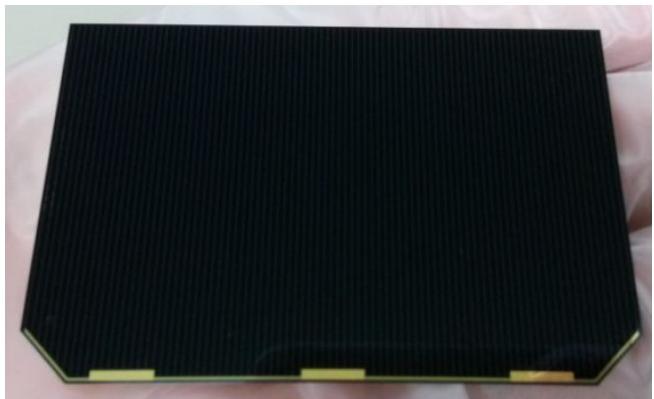


平均转换效率 ≥ 30%

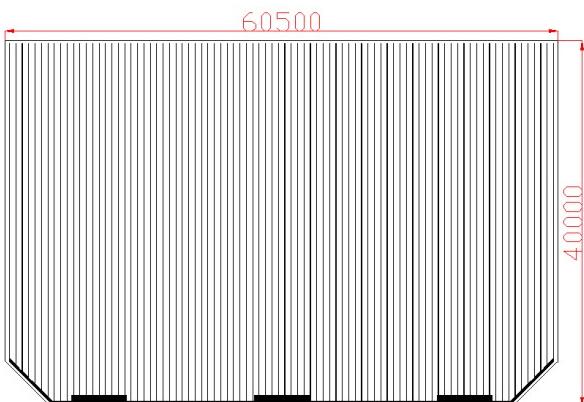
主体设计

主要材料	GaNP/GaAs/Ge
减反射膜	TiO _x /Al ₂ O ₃
电极主要材料	Ag/Au
尺寸	40±0.2mm×60.5±0.2mm
厚度	145μm±10μm
极性	N on P
平均重量	< 75mg/cm ²

空间太阳能电池芯片



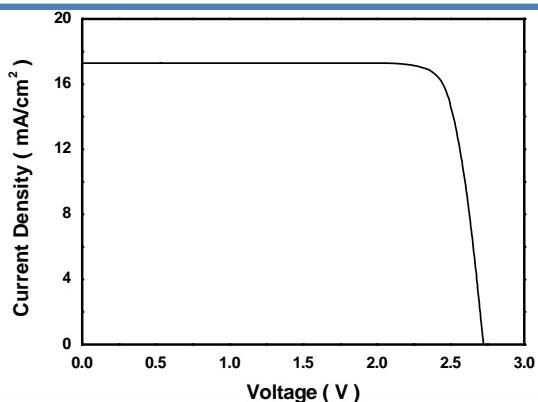
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I-V曲线

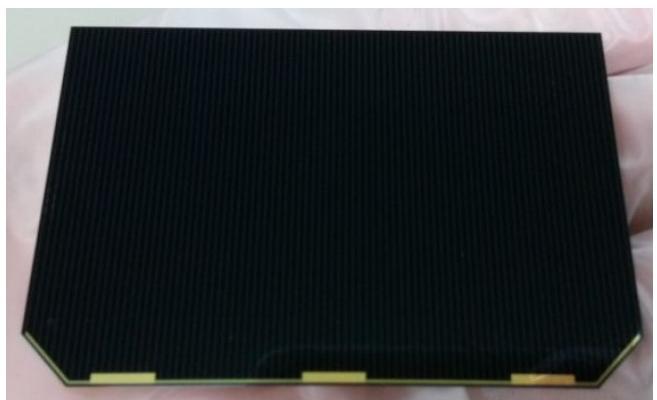


Average Efficiency $\geq 30\%$

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Material	GaNP/GaAs/Ge
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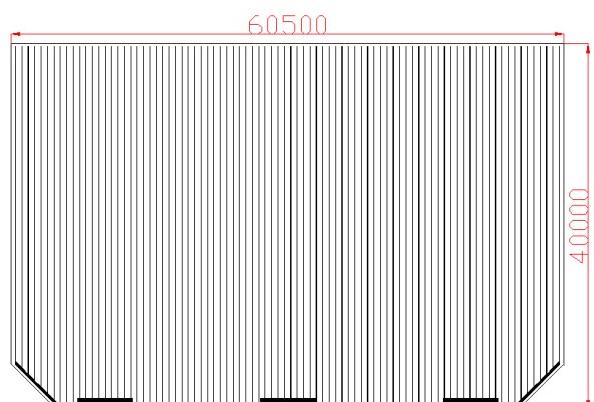
Space solar cell chip



Electronic properties@AM0(135.3mW/cm²), 25°C

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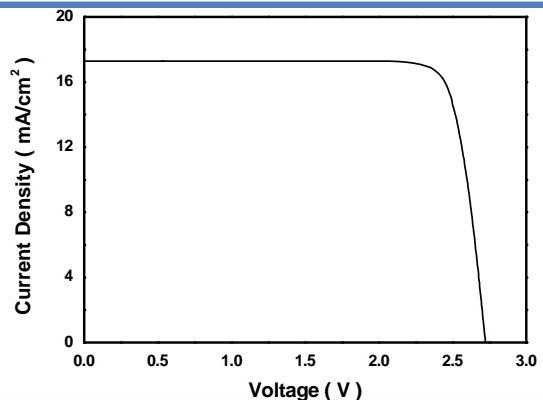
Cell design



Thermal coefficient

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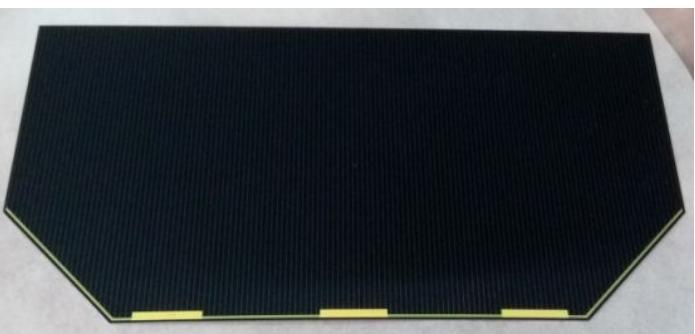
I-V curve



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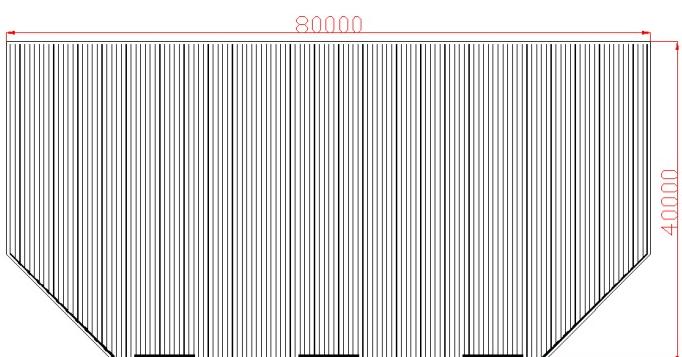


空间太阳能电池芯片

电学特性@AM0(135.3mW/cm²), 25°C

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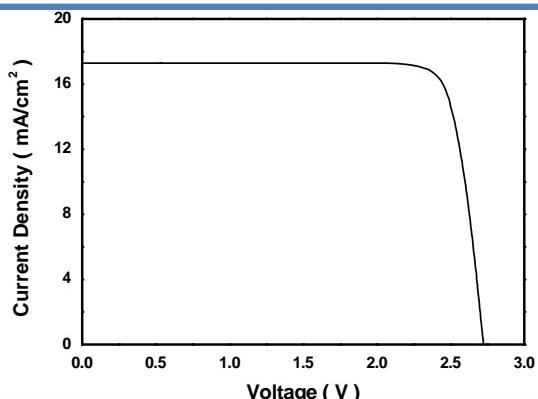
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I-V曲线

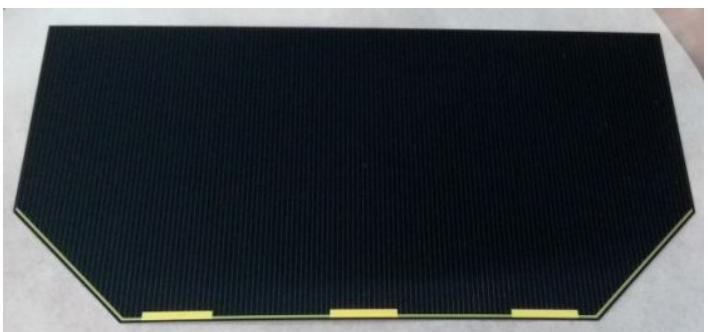


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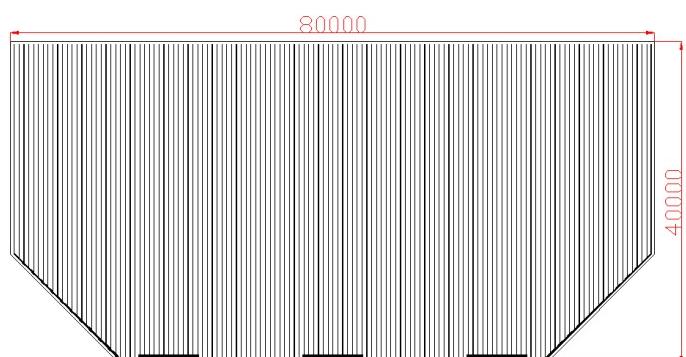
Photograph of the space solar cell



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I-Vcurve

